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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/073,207	02/13/2002	Timothy R. Hansen	42558	4797

7590 06/30/2004  
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EXAMINER
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BELLAMY, TAMIKO D

ART UNIT	PAPER NUMBER
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2856

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/073,207	Applicant(s) HANSEN ET AL.	
	Examiner Tamiko D. Bellamy	Art Unit 2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2002.  
 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 1-21 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☒ The drawing(s) filed on 17 March 2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/10/02</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 4, 5, 7, 8, 13-15, 19, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Dorenkott et al. (6,158,269).

Re to claim 1, Dorenkott et al. discloses in fig. 2, measuring pressure (98), and acquiring a pipette tip {e.g., sample probe (102) having pipette tip (108)} with a nozzle (e.g., channel 110). Dorenkott et al. also disclose determining pressure in the nozzle changes upon acquisition of a pipette tip (108) (col. 2, lines 28-30), and ascertaining a condition of a pipette tip {e.g., detector circuit that detects when a pipette tip (e.g. probe tip 108) is loaded or removed by an increase in pressure when the smaller tip opening is placed over the sample probe (102) (col. 3, lines 1-5), and detecting an obstruction of the sample probe tip} (col. 2, lines 27-28).

Re to claim 2, Dorenkott et al. specifically states (see col. 2, lines 65-67; col. 3, lines 1-5) that a calibrated tip having no opening is placed on a sample probe (102). Dorenkott et al. also states that the distal end (108a) of the probe tip (108) is occluded and the pump is left on (col. 6, lines 63-67). Dorenkott et al. discloses that if no leak exists the pressure will rise; however, if a leak exists, the pressure will not rise (col. 7, lines 1-4). Dorenkott et al.'s method of detecting when a leak exist by determining that

there is no pressure rise is equivalent to detecting that the probe tip is defective when the pressure remains constant upon acquiring the pipette tip.

Re to claims 4 and 5, Dorenkott et al. discloses a detector circuit that detects when a pipette tip (e.g. probe tip 108) is loaded or removed by an increase in pressure when the smaller tip opening is placed over the sample probe (102) (col. 3, lines –5). The method of determining an increase in pressure is equivalent to determining a non-defective tip id there is a pressure change.

Re to claim 7, Dorenkott et al. discloses that the distal end (108) of a pipette tip (e.g., probe tip 108) is occluded and the pump is left on. The pressure in the probe (102) is allowed to a predetermined limit during a calibration routine (col. 6, lines 63-67). Dorenkott et al. further discloses that a detector circuit that detects when a pipette tip (e.g. probe tip 108) is loaded or removed by an increase in pressure when the smaller tip opening is placed over the sample probe (102) (col. 3, lines 1-5).

Re to claim 8, Dorenkott et al. discloses a normal pressure can be established by placing a non-defective pipette tip (e.g., calibration tip) having no opening for aspiration onto a sample probe (102).

Re to claim 9, Dorenkott et al. also states that the distal end (108a) of the probe tip (108) is occluded and the pump is left on (col. 6, lines 63-67). Dorenkott et al. discloses that if no leak exists the pressure will rise; however, if a leak exists, the pressure will not rise (col. 7, lines 1-4). Dorenkott et al.'s method of detecting when a leak exist by determining that there is no pressure rise is equivalent to detecting that the probe tip is

defective when the pressure is less than a rate of change of a known non-defective pipette tip.

Re to claim 10, Dorenkott et al. discloses that the controller (94) performs a calibration routine to establish a threshold pressure. The method that Dorenkott et al. discloses inherently discloses determining a non-defective pipette tip if the rate of change of pressure is equal or greater than the rate of change of a known non-defective pipette tip.

Re to claims 13 and 15, Dorenkott et al. discloses in fig. 2, an air pump (70), and a pressure transducer (98). Re to further limitations of claim 15, the processor (e.g., controller 94) uses inherently determines a non-defective pipette tip.

Re to claim 14, Dorenkott et al. discloses a processor (e.g., controller 94).

Re to claims 19-21, Dorenkott et al. disclose that while in surface detection mode, the probe (102) is lowered; and once the probe tip reaches the surface of the liquid, the pressure transducer (98) senses the change in pressure (col. 2, lines 35-45). Re to further limitations of claim 21, the detected signals are provided a control signal to a processor (e.g., system controller 94).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3, 6, 11, 12, and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dorenkott et al. (6,158,269).

Re to claim 3, Dorenkott et al. specifically states (see col. 2, lines 65-67; col. 3, lines 1-5) that a calibrated tip having no opening is placed on a sample probe (102). Dorenkott et al. also states that the distal end (108a) of the probe tip (108) is occluded and the pump is left on (col. 6, lines 63-67). Dorenkott et al. discloses a leak detection circuit (128). Dorenkott et al. discloses that if no leak exists the pressure will rise; however, if a leak exists, the pressure will not rise (col. 7, lines 1-4). Dorenkott et al.'s method of detecting when a leak exist by determining that there is no pressure rise is equivalent to detecting that the probe tip is defective when the pressure remains constant upon acquiring the pipette tip. While, Dorenkott et al. does not specifically disclose discarding a defective pipette tip, Dorenkott et al. discloses a method of detecting a defective pipette tip (108), and detecting when the tip is loaded and removed (see col. 3, lines 1-5). Dorenkott et al. also discloses that the each event of the detector circuit (128) provides an output signal to a controller (94). The device of Dorenkott et al. can easily manipulate the controller (94) to discard the defective tip as well. Therefore, to employ Dorenkott et al. on discarding a defective pipette tip would have been obvious to one of ordinary skill in the art at the time of the invention since this reference explicitly teaches its use on a detecting a defect of a pipette tip.

Re to claims 6, 11, 12, and 16-18, Dorenkott et al. discloses a detector circuit that detects when a pipette tip (e.g. probe tip 108) is loaded or removed by an increase in

pressure when the smaller tip opening is placed over the sample probe (102) (col. 3, lines –5). While, Dorenkott et al. does not specifically disclose discarding a non-defective pipette tip after the use of the pipette tip, Dorenkott et al. discloses that the each event of the detector circuit (128) provides an output signal to a controller (94). The device of Dorenkott et al. can easily manipulate the controller (94) to discard the defective tip as well. Therefore, to employ Dorenkott et al. on discarding a non-defective pipette tip would have been obvious to one of ordinary skill in the art at the time of the invention since this reference explicitly teaches its use on a detecting a non-defective pipette tip.

### ***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamiko D. Bellamy whose telephone number is (571) 272-2190. The examiner can normally be reached on Mondays, Tuesdays & Fridays 6:30 AM to 3:30PM; and on Wednesdays and Thursdays the examiner 6:30 AM to 11:30 AM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

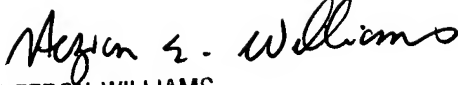
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Tamiko Bellamy

T.B.  
June 22, 2004

  
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